omer Airy in 1827. Bifocals were invented and first used by Benjamin Franklin, 1785. As to the selection of the appropriate lenses, this was at first done by the peddlers who sold them. Physicians for a long time paid no attention to it. Even after the epochal work of the astronomer Kepler had opened a new era in optics by demonstrating the physiology of the act of vision, 1604, physicians maintained their reserved attitude and considered it below the dignity of their profession to have anything to do with the selection of glasses. It was only in the middle of the last century that the change took place. This was due mainly to the labors of Helmholtz and Donders, who laid the foundation for the adjustment of lenses according to mathematical and optical principles. The invention of the ophthalmoscope, by which the refraction can be determined objectively; of the ophthalmometer, which measures the astigmatism of the cornea; and the introduction of remedies, by which the accommodation can be paralyzed followed in rapid succession. By means of these instruments and methods of precision, the medical adviser is governed by well-established laws in the selection of spectacles, and this now belongs to the domain of science. The lecture was illustrated by a number of copies of old paintings and by drawings.

DISCUSSION AND CORRESPONDENCE.

GEO-BIOLOGICAL TERMS.

THE fundamental idea of *bios* is not conveyed by the new terms proposed by Dr. Dall in SCIENCE (No. 494) for indicating collectively 'land and fresh-water organisms.' By analogy with Leibnitz's protogæa, or the primordial world, epigæa would apply to the superficies of the earth, and the literal meaning of namatogæa is 'stream-world.' Correctly formed substantives are geobios and limnobios, proposed by Haeckel as the equivalents of terrestrial and fresh-water faunæ respectively. These may be readily combined in GEO-LIMNOBIOS; or, if an adjective form is desired, AQUA-TERRESTRIAL, or compounds of *terrestris* with *mare, fluvius, lacus*, etc., suggest themselves. *Aqua* having the general significance of fresh water (*aqua pluvia, aqua fontana, aqua cœlestis*, etc.) as opposed to salt, the distinction between aqua-terrestrial and marino-terrestrial is sufficiently obvious. Shorter than any of these, however, is the Greek adjective form, GEO-LIMNOUS.

Those who are in the habit of following the discussion of neologisms in SCIENCE may recall the sprightly flow of opinion that continued for some time in these columns (Vols. V. and VI.) in regard to certain physiographic extravaganza, such as 'Shickshinnies' for synclinal valleys, 'remolino' for pot-hole, 'cuesta' for hill-slope, etc. If we may be forgiven for appearing ironical, it deserves to be pointed out that some of the more euphuistic of the terms proposed about that time are preoccupied. For instance, a round dozen of soft Spanish exotics were imported by Arthur Schott upwards of fifty years ago (*Proc. A. A. A. S.*, 1856, p. 33), but for some reason they failed to germinate. Priority, strictly enforced, might quicken them with new life; then pot-hole, or 'remolino,' would acquire the chastened form of *tinaja*, the homely but expressive 'sink' would give way to *charco*, and base-level to *loma*. The first of these is defined as 'a water-hole in solid rock, usually met with in crevices and ravines of rocky mountains.' *Charco* is a name given to "water-pools found usually in lower and level places. They are formed either by the decay of rocks or by washing out of beds of clay." *Loma* is 'a long narrow mountain or hill-ridge, with a level horizon.'

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A REPLY TO CERTAIN CRITICISMS OF PROFESSOR GIARD RESPECTING THE BOPYRIDS.

PROFESSOR ALFRED GIARD, a master in the knowledge of the Bopyridæ, has done me the favor to examine and criticize the results of my recent studies on that group.* Professor Giard has aptly affirmed that a copy of Bonnier's volume 'Contribution à l'étude des Bopyridæ' (*a*)† ought to be found in Wash-

* See *C. R. Soc. de Biologie*, LVI., 1904, April 22, pp. 591–594.

† The letters in parentheses refer to the bibliography at the end of the article.